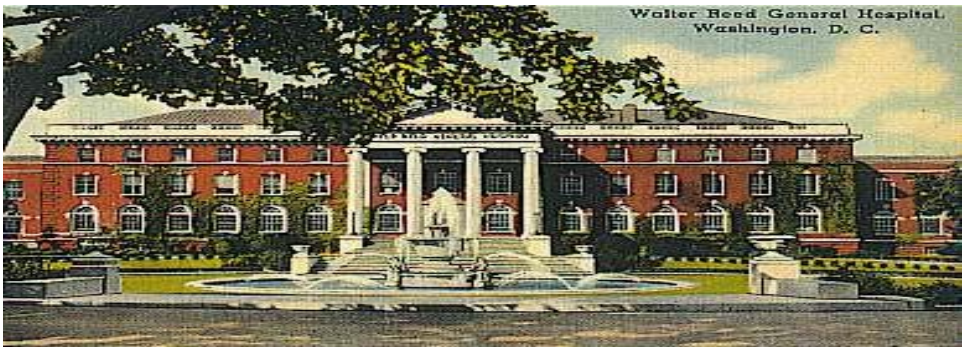
Walter Reed Cardiovascular Center



A Monthly Newsletter of the Cardiology Division of Walter Reed Army Medical Center

Commentary
Daniel E. Simpson, MD FACC

Walter Reed Cardiology is honored to have the "State-Of-The-Art Paper" in the May 5th issue of the Journal of the American College of Cardiology entitled "Smallpox Vaccination and Myopericarditis: A Clinical Review". Dimitri Cassimatis as first author along with Eddie Atwood and Marina Vernalis, are ensuring we maintain excellence in academic medicine. Dr. Cassimatis also participated in a news conference last week in New York concerning this work. Congratulations!

As a reminder, any and all patients will be accommodated here. **Just call 202-782-3832/3833 and ask to speak with the "E-DOC" or page 202-356-1111 x107-3311.** We remain available for e-mail, phone or page consultations for all of our primary care providers throughout the NCA/NARMC. Utilize the provided contact information for patient diagnostic or treatment questions.

Our new website is available at www.wramc.amedd.army.mil
Go to Clinical Departments → Medicine → Cardiology.

Cardiovascular Update
Daniel E. Simpson, MD FACC

"Minimally invasive" bypass is often asked for by patients. The term is misleading and there are 2 broad subsets. One approach is to limit the incision – reduce length of sternal incision or even perform laproscopically. Another is to avoid the cardiopulmonary bypass machine and perform the procedure while the heart is still beating. The techniques can be combined. Data on the benefit of each is still limited.

*Off-Pump vs Conventional Coronary Artery Bypass Grafting: Early and 1-Year Graft Patency, Cost, and Quality-of-Life Outcomes**

Background: Approximately 20% of coronary artery bypass operations were performed "off-pump" in 2002. This is an attempt to reduce the morbidity associated with the bypass pump. However, this "beating heart" surgery poses technical difficulties including imprecise anastomoses and incomplete revascularization.

Methods: Randomized controlled, single-surgeon trial of 197 patients undergoing CABG only from March '00 to August '01. The primary endpoint was graft patency at 30 days and at 1 year.

Results: The groups were well matched. Graft patency was not statistically different both at 30 days and at 1 year in the "off-pump" and conventional CABG groups – 99% v 97.7% and 93.6% v 95.8%. There were no differences in the incidence of death, MI, CVA, recurrent angina, readmission or percutaneous intervention. The "off-pump" costs at 1 year were $1955 less (p = 0.08).

Conclusion: The rates of early and late graft patency were the same for "off-pump" and conventional CABG. Cardiac outcomes were similar and the cost was slightly less with "off-pump".

Comments: This was a single institution and single surgeon trial with excellent results. The "learning curve" may make this difficult to apply broadly. Two other randomized trials demonstrated fewer grafts in "off-pump" patients.

*JAMA. 2004;291:1841-1849 www.jama.com

Guideline Review
Daniel E. Simpson, MD FACC

We frequently are consulted for "stress testing" due to chest pain syndromes. Standard exercise stress testing can be performed safely with reasonable diagnostic and prognostic accuracy. Some patients require imaging (exercise "thallium" or exercise ECHO) in order to improve the sensitivity and specificity (add imaging to exercise for maximal information). Only patients that are unable to exercise adequately should undergo a pharmacologic stress test (e.g. persantine thallium or dobutamine ECHO).

Recommendations for *"Risk Assessment and Prognosis in Patients with Symptoms or a Prior History of CAD"* with routine exercise stress testing*

Class I – General agreement that procedure/treatment is useful & effective
Class II – Conflicting evidence and/or divergence of opinion
Class III – Not useful/effective and in some cases may be harmful

Class I
- Patients undergoing initial evaluation with suspected or known CAD, including those with complete right bundle-branch block or less than 1 mm of resting ST depression. Specific exceptions are noted in Class IIb
- Patients with suspected or known CAD, previously evaluated, now presenting with significant change in clinical status
- Low risk unstable angina patients 8 to 12 hours after presentation who have been free of active ischemic or heart failure symptoms
- Intermediate risk unstable angina patients 2 to 3 days after presentation who have been free of active ischemic or heart failure symptoms

Class IIa
- Intermediate risk unstable angina patients who have initial cardiac markers that are normal, a repeat ECG without significant change, and cardiac markers 6 to 12 hours after onset of symptoms that are normal and no other evidence of ischemia during observation

Class IIb
- Patients with the following resting ECG abnormalities : Pre-excitation (WPW), electronically paced ventricular rhythm, 1 mm or more of resting ST depression, complete LBBB or any interventricular conduction defect with a QRS duration greater than 120 ms
- Patients with stable clinical course who undergo periodic monitoring to guide treatment

Class III
- Patients with severe comorbidity likely to limit life expectancy and/or candidacy for revascularization
- High risk unstable angina patients

*ACC/AHA Guidelines for the Stress Testing 2002

www.acc.org/clinical/statements.htm

Cardiovascular Trials at WRAMC

CARDIASTAR
PFO closure device versus standard anti-coagulation therapy with coumadin in patients with an embolic TIA/CVA and no other etiology

Questions/Referrals: Please contact Daniel Simpson

OPTIMIZE-HF
Assessment of inpatients with CHF and/or LV dysfunction to determine if guideline treatment is appropriately implemented

Questions/Referrals: Please contact Stephen Welka

WARCEF
Randomized, double-blind comparison of coumadin versus aspirin for the reduction of death and stroke in heart failure patients (EF < 30% and in sinus rhythm)

Questions/Referrals: Please contact Stephen Welka

RESCUE
Randomized, open label comparison of unfractionated heparin versus low molecular weight heparin in the treatment of high-risk non-ST elevation acute coronary syndromes

Questions/Referrals: Please contact Daniel Simpson

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